

Application No. 10/673,504
Amendment dated February 13, 2007
After Final Office Action of November 13, 2006

Docket No.: 0941-1683PUS1

REMARKS

Claims 1, 4, and 5 are rejected under 35 U.S.C. §102(b) as being anticipated by *Leroux*, US 5,512,915. Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over *Leroux* in view of *Mano et al.*, US 4,985,698.

In reply to the Office Action of Nov. 13, 2006, Applicant amends claim 1 to require the lines of joining portions to be adjacent each other. Since *Leroux* does not disclose amended claim 1, the rejections of the amended claim 1 under 35 U.S.C 102(b) are believed to be improper. Claims 3-5 are depended upon the amended claim 1 such that the belief of the Applicant that the rejections of the invention under 35 USC 102(b) and 35 USC 103(a) are traversed.

Response To Examiner's arguments

As recited in page 4 of the Office Action, Examiner mentions that "claim language does not require the lines of joining portions to be adjacent each other". Thus, Applicant amends claim 1 to require the lines of joining portions to be adjacent each other. Independent, newly-amended claim 1 is as below.

1. "A gate drive device for a display, the open sequences for a plurality of scan lines in a panel being changed so that open sequences of the plurality of scan lines between the two adjacent gate drivers being the same, the drive device comprising:

- a display panel being divided into a plurality of division panels;
- a plurality of gate drivers being the gate drivers of the plurality of division panels;
- a plurality of control circuits for connecting the data drivers and the gate drivers of the plurality of division panels; and
- a timing control register connected to the plurality of control circuits by a plurality of control lines;

wherein the timing control register is used for controlling the open timings of the scan lines of the plurality of division panels, **adjacent** scan lines in the joining portions of the plurality of upper-lower adjacent division panels are opened at the same time, and wherein the open timings of the **adjacent** scan lines in the joining portions of the plurality of upper-lower adjacent division panels are the same." (Emphasis added)

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Response To Claim Rejections Under 35 U.S.C. §102(b)

Claims 1, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by *Leroux*, U.S. 5,512,915.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *Leroux* does not disclose all limitations in the newly-amended claim 1, and the rejection should be withdrawn.

Independent, newly-amended claim 1 is as below.

1. "A gate drive device for a display, the open sequences for a plurality of scan lines in a panel being changed so that open sequences of the plurality of scan lines between the two adjacent gate drivers being the same, the drive device comprising:

a display panel being divided into a plurality of division panels;

a plurality of gate drivers being the gate drivers of the plurality of division panels;

a plurality of control circuits for connecting the data drivers and the gate drivers of the plurality of division panels; and

a timing control register connected to the plurality of control circuits by a plurality of control lines;

wherein the timing control register is used for controlling the open timings of the scan lines of the plurality of division panels, **adjacent** scan lines in the joining portions of the plurality of upper-lower adjacent division panels are opened at the same time, and wherein the open timings of the **adjacent** scan lines in the joining portions of the plurality of upper-lower adjacent division panels are the same." (Emphasis added)

Leroux at least fails to disclose the limitations as emphasized above. The Office Action alleges that the open timings of adjacent scan lines in the joining portions of the plurality of upper-lower adjacent division panels are the same.

Col. 6, lines 41-47 of *Leroux* cite as below:

"during a first half of the duration of a frame, to simultaneously select an uneven row of the first part 10 and an even row of the second par 12. During the second half of the duration of a frame, they permit the simultaneous selection of an even row of the first part 10 and an uneven row of the second part 12."

Col. 5, lines 48-52 of *Leroux* cite as below:

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"For example, the row numbered 1 is selected simultaneously with the row numbered $N+2$ and so on up to the final uneven row numbered $N-1$ of the first part 10 selected simultaneously with the row numbered $2N$ of the second part 12."

Col. 5, lines 60-64 of *Leroux* cite as below:

"For example, the row numbered 2 is selected simultaneously with the row numbered $N+1$ and so on up to the final uneven row numbered N and selected simultaneously with the row numbered $2N-1$ of the second part 12."

Obviously, *Leroux* does not disclose that adjacent scan lines in the joining portions of the plurality of upper-lower adjacent division panels are opened at the same time and the open timings of the adjacent scan lines in the joining portions of the plurality of upper-lower adjacent division panels are the same. For example, *Leroux* does not disclose that the row numbered N and $N+1$ are selected at the same time and the open timings of the row numbered N and $N+1$ are the same. Since *Leroux*, at least, does not disclose the limitation in claim 1, the rejection of claim 1 under 35 U.S.C. 102(b) should be overcome and withdrawn.

Consequently, *Leroux* does not disclose, suggest or teach all the features recited by claim 1 of the present invention, and the rejection is respectfully traversed. Insofar as claims 3-5 depend from claim 1, it is applicant's belief that the 102 rejections of claims 3-5 have been respectfully traversed.

Response To Claim Rejections Under 35 U.S.C. §103(a)

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Leroux* in view of *Mano et al.*, US 4,985,698. *Leroux* and *Mano*, individually or collectively, fail to disclose all the claim limitations in the claimed invention, however.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA, 1974).

As discussed for the patentability of the independent claim 1, *Leroux* fails to that adjacent scan lines in the joining portions of the plurality of upper-lower adjacent division panels are opened at the same time and the open timings of the adjacent scan lines in the joining portions of the plurality of upper-lower adjacent division panels are the same. The same claimed feature

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lacked in *Leroux* can be found nowhere in *Mano*. Consequently, since *Leroux* and *Mano* do not disclose, suggest or teach all the features recited by claim 1 of the present application, *Leroux* and *Mano* cannot render claim 1 anticipated or obvious, and claim 1 should be allowable over the references of record. Since claim 3 depends to allowable claim 1 to incorporate all the claimed features in claim 1, they, as a matter of law, should be allowable.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1 and 3-5 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,


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